

REMARKS

Applicant thanks the Examiner for a thorough search of the present application, but respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-3, 13, 15, 16, 20, 46, 56, 58, 59, and 60 are currently being amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-61 are now pending in this application.

In the outstanding non-final Office Action of January 23, 2008, the Examiner objected to claims 1-3 of the present application because the “data file” lacked antecedent basis. In response to the Examiner’s objection, Applicant has amended claims 1-3 to correct the antecedent issue. In addition, Applicant has also amended claims 13 and 15 to correct similar antecedent issues. In making these amendments, Applicant does not intend to narrow the scope of these claims, nor does it intend to surrender any claim scope with regard to the Doctrine of Equivalents. Should the Examiner have any questions concerning this issue, he is encouraged to contact the undersigned at his earliest convenience.

In addition, the Examiner rejected claims 46-61 because, in the Examiner’s opinion, “they fail to fall within a statutory category.” In response to this rejection, independent claims 46, 56, 58, 59, and 60 of the present application have been amended to recite “a computer program product embodied on a computer-readable medium.” An example of such a computer-readable medium is depicted in Figure 4 as a server with an associated memory. In addition, both the server and the associated memory are described in paragraph [0042] of the present

application. As such, Applicant submits that claims 46-61 as amended are directed to statutory subject matter. Therefore, Applicant respectfully requests that the rejection be withdrawn.

The Examiner rejected claims 1-5, 12, 17-22, 27, 32-37, 42, 46-50, 55, and 60-61 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,143,132 to Klein et al. (Klein). Applicant respectfully traverses the rejection for the reasons set forth below.

The Examiner asserted that Klein teaches all of the required limitations of at least independent claims 1, 17, 19, 32, 34, 46, and 60. Applicant disagrees with the Examiner's position. With regard to independent claims 1, 17, 19, 32, 34, 46, and 60, Applicant submits that Klein fails to teach or suggest transmitting "a formatted data file including metadata and content," as recited in claim 46 and similarly recited in claims 1, 17, 19, 32, 34, and 60. Furthermore, with regard to independent claims 17, 32, and 60, Applicant submits that Klein fails to teach or suggest "transmitting the identified metadata to a plurality of receiver devices at an earlier time location than they occur in the formatted data file," as recited in claim 17, and similarly recited in claims 32 and 60.

Klein is directed to a method and system for transmitting metadata and file data separately via a first communication channel and a second communication channel. (*see, e.g.*, Abstract, 112 and 110 in Figure 3, Figure 6a, and col. 2, lines 40-48). In order to transmit the metadata and the file data separately, the entire formatted data file must inherently be parsed into a separate metadata portion and a separate file data portion. After this parsing operation is conducted, a first file with metadata is transmitted via a first channel and a second file with file data is transmitted via a second channel. As such, Klein teaches a method of transmitting two separate files with different contents via two separate channels, wherein the metadata and the file data are never transmitted on the same channel or within the same file.

In contrast, independent claim 46 recites transmitting "a formatted data file including metadata and content." Claims 1, 17, 19, 32, 34, and 60 recite similar limitations. Accordingly, the claims clearly require the transmission of a single file (*i.e.*, the formatted data file), wherein

the single file includes *both* the metadata *and* the data file. As depicted in Figures 2a-c of the disclosure, the formatted data file includes the metadata and content. While the order within the formatted data file may differ, the formatted data file is still clearly a single formatted data file. Applicant submits that Klein fails to teach or even suggest such a feature because Klein teaches sending two separate files and not *a formatted data file*. In addition to this deficiency, Klein also fails to teach or even suggest sending a formatted data file that includes *both* the metadata *and* the data file. Instead, Klein teaches throughout the disclosure that the metadata and the file data are sent separately. (see, e.g., 110 and 112 in Fig. 3, Abstract, col. 2, lines, 40-58, and col. 7, lines 60-65). As such, Applicant submits that Klein cannot teach sending a formatted data file that includes *both* the metadata and the data file.

Since Klein fails to teach transmitting a formatted data file including metadata and content, Applicant submits that Klein fails to anticipate independent claims 1, 17, 19, 32, 34, 46, and 60. Accordingly, Applicant respectfully requests that the rejections of independent claims 1, 17, 19, 32, 34, 46, and 60 be withdrawn.

In addition to the above deficiencies, Applicant also submits that Klein fails to read on claims 17, 32, and 60 because Klein fails to teach or even suggest “identifying all the metadata in the formatted data file” and “transmitting the identified metadata to the plurality of receivers at an earlier time location than they occur in the original formatted data file,” as recited in claims 17, 32 and 60. In response to these claim elements, the Examiner asserted that Klein teaches this feature at column 2, lines 40-49. (*See* page 5 of the Office Action). Column 2, lines 40-49 states:

In operation, the *file server creates a table or list of metadata to be transmitted* asynchronously to the one or more client *computers via a first communication channel*. The metadata is any data that indicates properties associated with file data to be transmitted to the one or more client computers, such as the size or format of the file data, the file name, error correction information, etc. The actual *file data* associated with the metadata is *transmitted* onto the network by the file server *via a second communication channel*,

and may be any information that comprises a full data file.
(emphasis added)

Thus, Klein merely teaches that the file server “creates a table or list of metadata to be transmitted” over a first channel and that the “actual file data associated with the metadata is transmitted ... via a second communication channel.” At best, this teaching may relate to identifying the metadata in a formatted data file. However, there is no teaching whatsoever relating to “transmitting the identified metadata to a plurality of receivers *at an earlier time location than they occur in the original formatted data file,*” as recited in part in claims 17, 32 and 60. (Emphasis added). This claim element requires transmitting the identified metadata and then subsequently transmitting the original formatted data file, wherein the original formatted data file includes another copy of the metadata. In other words, the metadata is first transmitted by itself and then it is transmitted again as part of the original formatted data file. Applicant submits that Klein fails to teach or suggest such a feature because Klein separates the metadata out from the original formatted data file prior to the transmission of either the metadata or the file data. Accordingly, Klein would have already parsed/separated the metadata out of the original data file and therefore could not subsequently transmit an original formatted data file that included metadata. As such, Applicant submits that Klein also fails to anticipate independent claims 17, 32, and 60 for at least this reason.

On page 9 of the Office Action, the Examiner rejected claims 11, 13-16, 26, 28-31, 41, 43-45, 54, and 56-59 as being unpatentable over Klein in view of U.S. 7,139,811 to Lev Ran et al. (Lev Ran.). Applicant respectfully traverses the rejection for the reasons set forth below.

The Examiner asserted that Klein in combination with Lev Ran teaches all the required limitations of independent claims 13, 15, 16, 28, 30, 31, 43, 45, 56, 58, and 59. Applicant respectfully disagrees with the Examiner’s position. In particular, Applicant submits that Klein and Lev Ran, alone or in combination, fail to teach or suggest all the features of independent claims 13, 15, 16, 28, 30, 31, 43, 45, 56, 58, and 59. First, Applicant submits that each of these claims is distinguishable from the prior art because each claim recites *a formatted data file including metadata and content*. As discussed in great detail above, Klein fails to teach such a

feature. In addition, Applicant submits that Lev Ran fails to cure this deficiency because Lev Ran merely discusses that the forward error-correction (FEC) technique is known in the art and is used to save retransmission bandwidth and reduce delays. (Col. 52, lines 58-63). As such, Applicant submits that each of these claims are allowable for at least this reason.

Furthermore, with regard to independent claims 13, 28, 43, and 56, Applicant submits that Klein and Lev Ran, alone or in combination, fail to teach or suggest that FEC is used “to allocate more redundancy to the metadata than is allocated to the content.” In rejecting this feature, the Examiner asserted that Lev Ran taught this feature at column 52, lines 58-63. In response to this rejection, Applicant has examined the disclosure of Lev Ran and cannot find support for such a assertion. Lev Ran merely states:

Adaptation layer 45 preferably uses IP multicasting in order to more efficiently perform large-scale replication. Reliable multicasting mechanisms are used, preferably including forward error-correction techniques, as are known in the art, in order to save retransmission bandwidth and delays.

(Col. 52, lines 58-63; emphasis added). As such, Lev Ran merely teaches that FEC is known in the art and can be used to reduce delays and save retransmission bandwidth. However, there is no discussion or suggestion relating to allocating “more redundancy to metadata than is allocated to the content.” There is no teaching related to the proportion of redundancy or anything related to providing more redundancy to the metadata. As such, Applicant submits that the rejection of independent claims 13, 28, 43, and 56 is improper and should be withdrawn.

In addition, with regard to independent claims 15, 16, 30, 31, 45, 58, and 59, Applicant submits that Klein and Lev Ran, alone or in combination, fail to teach or suggest that the sender device is configured to use “point-to-point data repair to repair errors in receipt of metadata.” In rejecting this feature, similar to above, the Examiner asserted that Lev Ran taught this feature by mentioning that FEC is known in the art at column 52, lines 58-63. However, Applicant submits that there is a difference between FEC and point-to-point repairing. FEC is a technique of error correction wherein a certain number of redundant bits are included in the message to avoid

having to retransmit information at a later time. In contrast, point-to-point data repair involves a receiver (that has missed some data) sending a request to the sender to request retransmission of the missing packets. Accordingly, FEC is not the same as point-to-point repair, as asserted by the Examiner. As such, Applicant submits that the rejection of independent claims 15, 16, 30, 31, 45, 58, and 59 is improper and should be withdrawn.

Furthermore, with regard to independent claims 15, 30, and 58, Applicant submits that Klein and Lev Ran, alone or in combination, fail to teach or suggest that “the receiver devices are restricted such that they can request metadata but not content via point to point repair.” In rejecting this feature, the Examiner asserted that Klein’s statement that “a full cycle is complete once that recipient receives all the data in its entirety” reads on this feature. (Col. 6, lines 17-20). Applicant respectfully disagrees with the Examiner’s position. First, as discussed above, Klein and Lev Ran, alone or in combination, fail to teach or suggest point-to-point repair. Moreover, the recited portion of Klein has no correlation to this recited claim feature. The claim feature is related to restricting the receiving devices to only request metadata and not content. In contrast, the recited portion of Klein merely states that the full cycle commences once the receiving device has received all the data. There is simply no relation between the two features. As such, Applicant submits that Klein in combination with Lev Ran fails to read on independent claims 15, 30, and 58.

Furthermore, independent claims 16, 31, and 45 recite that “the sender is restricted such that it can send metadata but not content via point-to-point repair.” Similar to above, the Examiner asserted that this feature is disclosed at column 6, line 14-17 of Klein. However, Klein merely states that the full cycle commences once the receiving device has received all the data. In contrast, these claims relate to a restrictions on what type of data the sender can send during a point-to-point repair. In particular, the sender is restricted to only sending metadata during a point-to-point repair. As discussed above, Klein fails to discuss point-to-point repairing and also fails to teach restrictions on what type of data the sender can transmit. As such,

Applicant submits that the rejection of independent claims 16, 31, and 45 is improper and should be withdrawn.

Finally, the Examiner rejected dependent claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Klein in view of a document entitled “Forward Error Correction (FEC) Building Block” to Luby et al. et. (Luby). In addition, the Examiner rejected dependent claims 8, 23, 38, and 51 under 35 U.S.C. § 103(a) as being unpatentable over Klein in view of U.S. Patent No. 7,243,365 to Rahman (Rahman). In addition, the Examiner rejected dependent claims 9-10, 24-25, 39-40, 52, and 53 under 35 U.S.C. § 103(a) as being unpatentable over Klein in view Rahman further in view of a document entitled “RFC 2327” to Handley (Handley). Applicant notes that these remaining prior art references were directed to specific limitations recited in the remaining dependent claims of the present application. However, each of these dependent claims include at least one of the deficiencies discussed above with regard to the independent claims, and Applicant submits that none of these remaining prior art references cure the deficiencies discussed above.

Because none of the references cited by the Examiner, either separately or in combination with each other, teach all of the required limitations of independent claims 1, 13, 15, 16, 17, 19, 28, 30, 21, 32, 34, 43, 45, 46, 56, 58, 59, and 60, Applicant submits that each of these independent claims are patentable over the prior art. Furthermore, because dependent claims 2-12, 14, 18, 20-27, 29, 33, 35-42, 44, 47-55, 57, and 61 are each directly or indirectly dependent upon independent claims 1, 13, 15, 16, 17, 19, 28, 30, 21, 32, 34, 43, 45, 46, 56, 58, 59, and 60, Applicant submits that each of these claims are allowable for at least the same reasons as discussed above.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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